

39. (New) The anisotropic thin film structure of claim 35 wherein a deposition rate of the first component does not equal a deposition rate of the second component.

40. (New) The anisotropic thin film structure of claim 35 wherein the modulations in the lateral composition of the thin film structure is periodic.

REMARKS

This Amendment is in response to the Office Action mailed on October 28, 2002. Pending in the present application were claims 1-20. With this Amendment, claims 1-20 are canceled and claims 21-40 are added. Applicant believes the present application is now in condition for allowance, and respectfully requests reconsideration and notice to that effect.

Election/Restriction

The Office Action requires election between Group I apparatus claims 1-12 and 20 and Group II method claims 13-19. Applicant herein confirms its provisional election to prosecute Group I apparatus claims 1-12 and 20 and cancels Group II method claims 13-19.

Definiteness

In the Office Action, claims 1-12 and 20 were rejected under 35 U.S.C. § 112, ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regard as his invention. With this Amendment, claims 1-12 and 20 are canceled and new claims 21-40 are added. Accordingly, this rejection is now moot. Moreover, Applicant addressed the concerns raised in these rejections when drafting new claims 21-40.

Enablement and Anticipation

Claims 1-12 and 20 were rejected under 35 U.S.C. § 112, ¶1 as containing subject matter not described in the specification in such a way to enable one of skill in the art to make and/or use the invention. Claims 1-12 and 20 were also rejected under 35 U.S.C. § 102(b) as being anticipated by Applicant's Admissions at page 2 regarding self-assembled structures, by Applicant's Admissions at page 1 regarding photolithographic laterally composition modulated films, by Mirecki

et al in MRS Bulletin, by Bertero et al. (U.S. Patent No. 5,660,930), by Chambliss et al. (U.S. Patent No. 5,858,455), and by Iwatsuka et al. (U.S. Patent No. 5,245,471).

With this Amendment, claims 1-12 and 20 have been canceled and claims 21-40 have been added. Accordingly, these enablement and anticipation rejections are now moot. Moreover, Applicant submits that new claims 21-40 (of which claims 21, 27, and 35 are independent) more clearly define the present invention such that claims 21-40 are enabled by the specification and are each patentable over each of the cited references.

Claims 21-40 are each directed toward a thin film structure having lateral composition modulations. The thin film structures of claims 21-40 are each formed of at least two components, each of which was simultaneously deposited from a different direction at a different deposition angle, wherein each deposition angle is measured with respect to a vertical line substantially normal to a plane of the thin film structure. The thin film structures of claims 21-40 each require an uneven growing film topography and a plurality of layers deposited thereon. The growing film topography has at least two surfaces, each of which is oriented to collect more of one of the at least two components than the remaining components during simultaneous deposition of the at least two components. The resulting plurality of layers has a ballistic separation of the at least two components.

None of the cited references teaches or suggests a thin film structure according to claims 21-40. Accordingly, claims 21-40 are patentable over the cited references.

In view of the foregoing remarks, Applicant believes that claims 21-40 are in condition for allowance. Reconsideration and notice to that effect is respectfully requested. The Examiner is invited to contact the undersigned at the telephone number listed below if such a call would in any way facilitate allowance of the application.

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The Commissioner is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 11-0982. A duplicate copy of this communication is enclosed.

Respectfully submitted,

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